

Here's the functional hierarchy for each role, presented in a format suitable for inclusion in a Scope of Work document:

Functional Hierarchy: Student Athlete Role

1. Account Management

- **Login/Signup:**
 - Implement secure authentication mechanisms:
 - Username/password authentication with strong password requirements (minimum length, character types)
 - Social login integration (Google, Facebook, etc.) with appropriate user consent and data privacy controls
 - Implement account verification process:
 - Email confirmation upon signup
 - Option for phone number verification for enhanced security
 - Develop password reset functionality:
 - Allow users to reset forgotten passwords via email or phone number verification
 - Implement password complexity requirements for security
- **Profile Management:**
 - Allow users to update personal information:
 - Name, age, school, sport, grade level, gender identity (optional)
 - Provide clear instructions and validation rules for data entry
 - Implement privacy settings:
 - Control data sharing with other users, coaches, and DSCYF/DPBHS staff
 - Allow users to opt-in or out of notifications and data collection
 - Enable linking to external accounts:
 - Integrate with fitness trackers (Fitbit, Apple Health, etc.) for data synchronization
 - Allow users to connect social media accounts (optional) with appropriate privacy controls

2. Dashboard

- **Personalized Content:**
 - Develop a dynamic dashboard that displays relevant content based on user profile:
 - Sport, age, interests, goals, and progress
 - Utilize machine learning algorithms (if applicable) to personalize content recommendations
 - Implement progress tracking features:
 - Track progress on fitness goals (workouts, nutrition, sleep)
 - Display progress visually using charts, graphs, and timelines
 - Allow users to set and track personal milestones
 - Provide access to personalized resources:
 - Articles, videos, infographics, and local support resources relevant to the user's sport, age, and interests
 - Utilize a content management system (CMS) to manage and update resources
- **Activity Tracking:**
 - Implement robust activity tracking features:
 - Allow users to log workouts (type, duration, intensity, location)
 - Integrate with GPS tracking (if applicable) for accurate location data
 - Provide options for manual entry of workout data
 - Implement nutrition tracking:
 - Allow users to log food intake (type, quantity, calories)
 - Integrate with food databases or barcode scanning for easy entry
 - Provide calorie tracking and personalized recommendations
 - Implement sleep tracking:
 - Allow users to log sleep duration and quality
 - Integrate with wearable devices (if applicable) for automatic sleep tracking
 - Implement stress level tracking:
 - Provide options for users to record stress levels using scales or journaling
 - Offer stress management techniques and resources

3. Wellness & Prevention Resources

- **Mental Health:**
 - Provide access to information on mental health topics:
 - Anxiety, depression, stress, coping mechanisms, and mental health resources
 - Utilize evidence-based information and resources from reputable organizations
 - Implement mental health resources:
 - Links to mental health hotlines, apps, and local support organizations
 - Provide information on mental health professionals and services
 - Develop self-assessment tools:

- Mood trackers, questionnaires, and other tools to help users assess their mental health
 - Provide guidance on interpreting results and seeking professional help if needed
- **Physical Health:**
 - Provide access to information on physical health topics:
 - Nutrition, exercise, sleep, injury prevention, and healthy habits
 - Utilize evidence-based information and resources from reputable organizations
 - Implement fitness tools:
 - Workout plans, exercise videos, and other tools to promote physical activity
 - Integrate with fitness trackers (if applicable) for personalized workout recommendations
 - Connect with local fitness resources:
 - Provide links to gyms, trainers, and other fitness resources in the user's area
- **Substance Prevention:**
 - Provide access to information on substance use and its risks:
 - Alcohol, tobacco, drugs, and other substances
 - Utilize evidence-based information and resources from reputable organizations
 - Implement substance abuse prevention resources:
 - Links to hotlines, support groups, and other resources
 - Provide information on substance abuse treatment and recovery
 - Develop healthy coping mechanisms and stress management techniques:
 - Provide information and tools to help users manage stress and avoid substance use

4. Community & Support

- **Social Features:**
 - Implement social features to connect student athletes:
 - Message boards, chat rooms, and other platforms for communication
 - Allow users to share progress, achievements, and experiences
 - Implement privacy controls to protect user data and prevent harassment
- **Support Groups:**
 - Allow users to join support groups based on sport, school, or interests:
 - Provide a platform for peer support and encouragement
 - Facilitate sharing of experiences, advice, and resources
 - Implement moderation tools to ensure a safe and positive environment

5. Notifications & Reminders

- **Personalized Notifications:**
 - Implement a notification system to send personalized reminders:
 - Workouts, nutrition goals, appointments, and other important events
 - Notifications about new content, resources, and challenges
 - Allow users to customize notification settings and preferences
- **Push Notifications:**
 - Utilize push notifications for timely reminders and updates:
 - Ensure notifications are relevant and valuable to users
 - Provide options for users to manage notification frequency and settings

Functional Hierarchy: Coach/Athletic Director Role

1. Account Management

- **Login/Signup:**
 - Implement secure authentication mechanisms:
 - Username/password authentication with strong password requirements
 - Two-factor authentication (optional) for enhanced security
 - Implement account verification process:
 - Email confirmation upon signup
 - Develop password reset functionality:
 - Allow coaches to reset forgotten passwords via email verification
- **Profile Management:**
 - Allow coaches to update personal information:
 - Name, school, sport, contact information
 - Implement privacy settings:
 - Control data sharing with athletes, DSCYF/DPBHS staff, and other coaches
 - Allow coaches to opt-in or out of notifications and data collection

2. Dashboard

- **Team Management:**
 - Implement a team management dashboard:
 - View roster of student athletes
 - Track individual athlete progress (fitness, nutrition, mental health)
 - Assign tasks and goals to athletes
 - Communicate with athletes (messaging, announcements)
 - Develop a system for managing athlete data:
 - Securely store and access athlete data
 - Implement data privacy controls to protect sensitive information
 - Implement communication tools:
 - Group messaging for team communication
 - Announcement features for sharing important information
- **Resource Management:**
 - Provide access to a resource library:
 - Articles, videos, infographics, and local support resources relevant to the sport
 - Allow coaches to share resources with athletes
 - Implement a content management system (CMS):
 - Allow coaches to create and manage team-specific content
 - Track resource usage and effectiveness

3. Data & Analytics

- **Performance Tracking:**
 - Implement performance tracking features:
 - View team and individual athlete performance data (workouts, nutrition, sleep)
 - Analyze trends and identify areas for improvement
 - Generate reports for team evaluation and progress monitoring
 - Develop data visualization tools:
 - Charts, graphs, and dashboards to display performance data
 - Utilize data analytics tools to identify patterns and insights
- **Wellness Insights:**
 - Track team and individual athlete wellness metrics:
 - Stress levels, mental health, and other relevant indicators
 - Utilize data to identify potential issues and provide support
 - Analyze data to inform training and coaching strategies

4. Communication & Collaboration

- **Team Messaging:**
 - Implement a secure messaging system for team communication:
 - Allow coaches to communicate with athletes and staff
 - Provide options for group chats, announcements, and private messages
 - Implement features for sharing files and documents:
 - Allow coaches to share training plans, schedules, and other relevant materials
- **Resource Sharing:**
 - Implement a system for sharing resources with athletes and staff:
 - Allow coaches to create and manage team-specific content libraries
 - Track resource usage and effectiveness

5. Admin & Management

- **User Management:**
 - Implement user management features:
 - Add, edit, and delete user accounts (athletes, staff)
 - Assign roles and permissions
 - Manage user access and data privacy
- **App Configuration:**
 - Allow coaches to customize app settings:
 - Branding, content, notifications, and other app features
 - Integrate with external systems (school databases, fitness trackers)

Functional Hierarchy: DSCYF/DPBHS Staff Role

1. Account Management

- **Login/Signup:**

- Implement secure authentication mechanisms:
 - Username/password authentication with strong password requirements
 - Two-factor authentication (optional) for enhanced security
- Implement account verification process:
 - Email confirmation upon signup
- Develop password reset functionality:
 - Allow staff to reset forgotten passwords via email verification
- **Profile Management:**
 - Allow staff to update personal information:
 - Name, role, contact information, department
 - Implement privacy settings:
 - Control data sharing with other staff, coaches, and athletes
 - Allow staff to opt-in or out of notifications and data collection

2. Content Management

- **Resource Library:**
 - Implement a robust resource library:
 - Add, edit, and delete resources (articles, videos, local support)
 - Categorize and tag resources for easy search
 - Manage resource access and visibility (public, private, restricted)
 - Develop a content management system (CMS):
 - Utilize a user-friendly interface for managing content
 - Implement version control for tracking changes to resources
- **Content Creation:**
 - Allow staff to create and publish content:
 - Articles, videos, infographics, and other relevant materials
 - Utilize a rich text editor for formatting and styling content
 - Implement a media library for storing and managing images and videos
 - Implement content scheduling:
 - Allow staff to schedule content for future publication
 - Utilize a calendar interface for managing content deadlines

3. Data & Analytics

- **App Usage Tracking:**
 - Implement app usage tracking features:
 - Monitor app usage metrics (active users, content engagement, feature usage)
 - Analyze data to understand user behavior and preferences
 - Generate reports for program evaluation and improvement
 - Utilize data analytics tools:
 - Track user interactions, content consumption, and app performance
 - Identify trends and patterns in user behavior
- **Impact Assessment:**
 - Track the impact of the app on student athlete wellness:
 - Analyze data to measure program effectiveness and identify areas for improvement
 - Utilize data to inform program development and resource allocation
 - Develop metrics for measuring program impact:
 - Track changes in athlete behavior, attitudes, and outcomes
 - Utilize surveys, questionnaires, and other data collection methods

4. Admin & Management

- **User Management:**
 - Implement user management features:
 - Add, edit, and delete user accounts (staff, coaches)
 - Assign roles and permissions
 - Manage user access and data privacy
- **App Configuration:**
 - Allow staff to customize app settings:
 - Branding, content, notifications, and other app features
 - Integrate with external systems (school databases, data analytics platforms)

Functional Hierarchy: App Developer/Support Role

1. Backend Management

- **Database Management:**
 - Design, implement, and maintain the app's database:
 - Utilize a relational database management system (RDBMS) or NoSQL database (depending on requirements)
 - Ensure data security and integrity through appropriate database design, access controls, and encryption
 - Implement data backups and recovery procedures to prevent data loss
- **API Development:**
 - Develop and maintain APIs for app functionality:
 - RESTful APIs for data exchange between the app and backend systems
 - Implement API security measures (authentication, authorization, rate limiting)
 - Integrate with external systems (fitness trackers, social media, school databases)
 - Ensure API performance and scalability

2. App Development & Maintenance

- **Code Development:**
 - Develop and maintain the app's codebase:
 - Utilize appropriate programming languages (Swift, Kotlin, React Native, etc.)
 - Implement best practices for code quality, maintainability, and security
 - Utilize version control systems (Git) for code management and collaboration
- **App Testing & Deployment:**
 - Conduct thorough testing of app functionality:
 - Unit testing, integration testing, user acceptance testing (UAT)
 - Utilize testing frameworks and tools to ensure app quality
 - Deploy app updates and new versions:
 - Utilize continuous integration and continuous delivery (CI/CD) pipelines
 - Implement a robust deployment process to ensure smooth updates
 - Monitor app performance and stability:
 - Utilize monitoring tools to track app performance metrics (response times, error rates)
 - Implement error logging and reporting mechanisms

3. User Support

- **Technical Support:**
 - Provide technical support to users:
 - Troubleshooting issues, resolving bugs, and addressing technical inquiries
 - Utilize a ticketing system or help desk for managing support requests
 - Implement a knowledge base or FAQ section for common issues
 - Manage user accounts and access:
 - Reset passwords, manage user permissions, and resolve account-related issues
- **Content Support:**
 - Assist with content management and updates:
 - Ensure content accuracy, relevance, and accessibility
 - Manage content access and permissions
 - Provide guidance on content creation and formatting

This detailed functional hierarchy provides a comprehensive overview of the technical requirements for each role. It outlines the specific functionalities, technical aspects, and development processes involved in creating and maintaining the app. This information can be used to create a detailed Scope of Work document that clearly defines the project's requirements and deliverables.